

Listing of the Claims:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

1 1 (Currently Amended). A method of updating a program in a terminal
2 device such that update data and an existent program ~~may be~~ are stored
3 separately within said terminal device, wherein
4 if a transmission of update data from a base station to a terminal
5 device is interrupted due to any disconnection between them, then after it
6 ~~is verified~~ verifying that the terminal device becomes re-connected to the
7 base station, ~~re-starting said transmission process is re-started~~ for
8 remaining parts only of the update data;
9 dividing said update data ~~are divided~~ into a plurality of data sets by
10 said base station, ~~and~~ said ~~plural~~ plurality of data sets ~~are being~~ added with
11 sequential pointers respectively; and
12 verifying by an arithmetic unit of the terminal device ~~verifies~~ a
13 pointer of a completely received ~~final~~ update data set and ~~determines~~
14 determining a next pointer in connection with ~~the~~ a next data set which
15 should be received next after the terminal device becomes re-connected to
16 the base station.

2. (Canceled).

1 3 (Currently Amended) . The method as claimed in claim 1, wherein after
2 ~~one with~~ a next pointer for said remaining data set is confirmed, then
3 transmitting a ~~the~~ data set with the next pointer by the base station ~~is first~~
4 ~~transmitted during said re-transmission processes.~~

1 4 (Currently Amended). The method as claimed in claim 1, wherein after
2 all of said update data are transmitted, then automatically starting an
3 operation test by the arithmetic unit ~~is automatically started.~~

1 5 (Currently Amended). The method as claimed in claim 3, wherein after
2 all of said update data are transmitted, then automatically starting an
3 operation test by the arithmetic unit ~~is automatically started~~.

1 6 (Currently Amended). A terminal device including:
2 a receiving unit for receiving update data transmitted;
3 an updating unit for receiving said update data and updating an
4 existent program with said update data, such that said update data and
5 existent program ~~may be~~ are stored separately within the terminal device
6 them;
7 an additional unit for transmitting said remaining data sets with
8 reference to pointers added to said data sets;
9 an arithmetic unit for verifying a pointer of a completely received
10 ~~final~~ update data set and determining a next pointer in connection with ~~the~~
11 a next data set which should be received next; and
12 a re-starting unit for re-starting transmission process of remaining
13 non-transmitted parts of the update data, after it is verified that the terminal
14 device becomes connected to the base station, if a transmission of update
15 data from a base station to a terminal device is interrupted due to any
16 disconnection between them.

7. (Canceled)

1 8 (Currently Amended). The terminal device as claimed in claim 6,
2 wherein after all of said update data are transmitted, then an operation test
3 is automatically started by said arithmetic unit.

1 9 (Currently Amended). The terminal device as claimed in claim 8, further
2 including a re-writing unit for rewriting an updated program into said
3 extent program.

1 10 (New). A method of updating operation system software in a mobile
2 terminal device by transmitting update data from a base station to the
3 mobile terminal device comprising the steps of:
4 dividing the update data into a plurality of data sets by the base
5 station;
6 transmitting the plurality of data sets by the base station with
7 sequential pointers for each of the data sets to the mobile terminal device;
8 receiving the data sets with the sequential pointers by the mobile
9 terminal device;
10 storing normal operation system software in a first storage area of
11 the mobile terminal device;
12 storing the received data sets by the mobile terminal device in a
13 third storage area of the mobile terminal device separate from the first
14 storage area;
15 if a transmission of update data from the base station to the mobile
16 terminal device is interrupted, then after verifying that the mobile terminal
17 device is connected to the base station, confirming a next pointer for a
18 remaining data set to be received and transmitting a data request with the
19 next pointer by the mobile terminal device to the base station to re-start
20 transmission of data sets beginning with the remaining data set;
21 after all data sets are received by the mobile terminal device,
22 automatically performing an operation test on the update data to verify
23 operation of updated operation system software; and
24 writing update data from the third storage area to the first storage
25 area and resuming normal operation by the mobile terminal device.

1 11 (New). The method of updating operation system software in a mobile
2 terminal device recited in claim 10, further comprising the step of copying
3 the normal operation system software from the first storage area to a
4 second storage area while updating operation system software.

1 12 (New). The method of updating operation system software in a mobile
2 terminal device recited in claim 11, wherein if the update data includes
3 defective data as determined by the operation test, further comprising the
4 steps of:
5 copying the normal operation system software from the second
6 storage are to the first storage area;
7 operating by the mobile terminal device using the normal operation
8 system software stored in the first storage area; and
9 sending by the mobile terminal device an update request to the base
10 station.

1 13 (New). The method of updating operation system software in a mobile
2 terminal device recited in claim 10, further comprising the step of
3 transmitting by the mobile terminal device a notice to the base station that
4 the operation system software was completely updated.

1 14 (New). The method of updating operation system software in a mobile
2 terminal device recited in claim 10, wherein the operation test is performed
3 by transmission and receiving operations between the mobile terminal
4 device and the base station.

1 15 (New). A mobile terminal device which communicates with a base
2 station and receives updated operation system software from the base
3 station comprising:
4 a transmitter unit for transmitting data requests to the base station;
5 a receiver unit for receiving update data sets from the base station,
6 update data being divided into data sets and transmitted with sequential
7 pointers by the base station; and
8 a processor unit including a first storage area for storing system
9 software for normal operation, a second storage area for providing a save
10 area to the system software, the second storage area electrically connected
11 to the first storage area, a third storage area for storing a updated operation

12 system software, and an arithmetic unit operable based on normal
13 operation system software stored in first storage area;
14 wherein the arithmetic unit stores received data sets in the third
15 storage area and if transmission of update data from the base station to the
16 mobile terminal device is interrupted, then after verifying that the mobile
17 terminal device is connected to the base station, confirming by the
18 arithmetic unit a next pointer for a remaining data set to be received and
19 transmitting a data request by the transmitter unit to the base station to re-
20 start transmission of data sets beginning with the remaining data set, and
21 after all data sets are received by the mobile terminal device, automatically
22 performing an operation test by the arithmetic unit to verify operation of
23 updated operation system software, the arithmetic unit then writing update
24 data from the third storage area to the first storage area and resuming
25 normal operation of the mobile terminal device.

1 16 (New). The mobile terminal device recited in claim 15, further
2 comprising:
3 a display unit; and
4 an operational unit;
5 wherein the arithmetic unit instructs the display unit to display that
6 operation system software is being updated and inhibits any inputs from
7 the operation unit during an updating process.

1 17 (New). The mobile terminal device recited in claim 15, wherein the
2 arithmetic unit copies the normal operation system software from the first
3 storage area to the second storage area while updating operation system
4 software.

1 18 (New). The mobile terminal device recited in claim 17, wherein if the
2 update data includes defective data as determined by the operation test, the
3 arithmetic unit copies the normal operation system software from the
4 second storage area to the first storage area, operates using the normal

5 operation system software stored in the first storage area, and sends an
6 update request to the base station by the transmitting unit.

1 19 (New). The mobile terminal device recited in claim 15, wherein the
2 arithmetic unit transmits by the transmitting unit a notice to the base
3 station that the operation system software was completely updated.

1 20 (New). The mobile terminal device recited in claim 15, wherein the
2 operation test performed by the arithmetic unit is by transmission and
3 receiving operations between the mobile terminal device and the base
4 station.